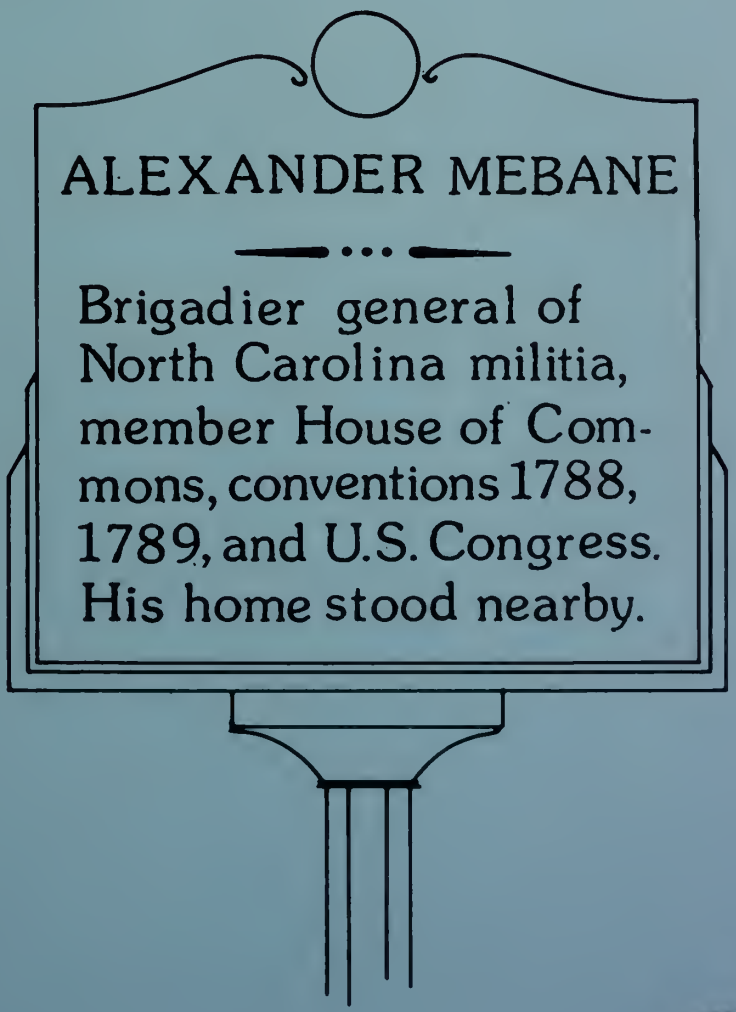
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MEBANE

THOROUGHFARE PLAN



Division of Highways

MEBANE THOROUGHFARE PLAN

Prepared by: Planning and Research Branch,
Division of Highways,
North Carolina Department of
Transportation

In cooperation with: Town of Mebane
Federal Highway Administration,
United States Department of
Transportation

June, 1979

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I. INTRODUCTION

A thoroughfare plan for the Mebane area was cooperatively developed by the Community Planning Division, North Carolina Department of Conservation and Development, and the Planning and Research Department, North Carolina State Highway Commission in 1966. This plan with some minor changes was formally approved by the Mebane Board of Commissioners on May 27, 1970 and the Highway Commission on June 25, 1970.

As a result of continuing traffic problems, the Town requested an overall review of the plan in 1976. This report documents the reanalysis and recommended revised plan resulting from the review.

The recommended plan included herein was developed following the basic thoroughfare planning principles as described in Chapter II. It is based on an analysis of existing circulation problems, existing land use and street facilities, and anticipated future economic and population growth. The plan sets forth those improvements which are expected to be required for proper traffic circulation within the current planning period (1977-2000).

It is recommended that the revised plan be approved by the Mebane Board of Commissioners and the Board of Transportation. North Carolina General Statutes Section 136-66.2 provides that a thoroughfare plan remains in effect until changes are mutually approved by the North Carolina Board of Transportation and the municipal governing board. Hence, the 1970 Mebane Thoroughfare Plan remains in effect until it is mutually revised by the Town and Board of Transportation.

Upon mutual approval, the revised plan will serve as a mutual official guide for the future development of the street system in the urban area.

II. THOROUGHFARE PLANNING PRINCIPLES

Typically, the urban street system occupies 25 to 30 percent of the total developed land in an urban area. Since the system is permanent and expensive to build and maintain, much care and foresight are needed in its development. Thoroughfare planning is the process used by public officials to assure the development of the most appropriate street system to meet existing and future travel desires within the urban area.

The primary aim of a thoroughfare plan is to guide the development of the urban street system in a manner consistent with changing traffic demands. Through proper planning for street development, many costly errors and much needless expense can be averted. A thoroughfare plan will enable street improvements to be made as traffic demands increase, and only such improvements necessary to meet these demands need be made. By developing the urban street system to keep pace with increasing traffic demands, a maximum utilization of the system can be attained, thereby requiring a minimum amount of land for street purposes. In addition to providing for traffic needs, the thoroughfare plan should embody those details of good urban planning necessary to present a pleasing and efficient urban community. The location of present and future population, commercial, and industrial enterprises, affects major street and highway locations. Conversely, the location of major streets and highways within the urban area will influence the urban development pattern.

Other objectives of a thoroughfare plan include:

- To provide for the orderly development of an adequate major street system as land development occurs;
- To reduce travel and transportation costs;
- To reduce the cost of major street improvements to the public through the coordination of the street system with private action;
- To enable private interests to plan their actions, improvements, and development with full knowledge of public intent;
- To minimize disruption and displacement of people and businesses through long range advance planning for major street improvements;

- To reduce environmental impacts such as air pollution, resulting from transportation;

- To increase travel safety.

Thoroughfare planning objectives are achieved through both (1) improving the operational efficiency of thoroughfares and (2) improving the system efficiency through system coordination and layout.

Operational Efficiency

A street's operational efficiency is improved by increasing the capability of the street to carry vehicular traffic and people. In terms of vehicular traffic, a street's capacity is defined as the maximum number of vehicles which can pass a given point on a roadway during a given time period under prevailing roadway and traffic conditions. Capacity is affected by the physical features of the roadway, nature of traffic and weather.

Physical ways to improve vehicular capacity include street widening, intersection improvements, improving vertical and horizontal alignment, and eliminating roadside obstacles. For example, widening of a street from two to four travel lanes more than doubles the capacity of the street by providing additional maneuverability for traffic. Impedances to traffic flow caused by slow moving or turning vehicles and adverse effects of horizontal and vertical alignments are thus reduced.

Operational ways to improve street capacity include:

- Control of access - A roadway with complete access control can often carry three times the traffic handled by a non-controlled access street with identical lane width and number.

- Parking removal - Increases capacity by providing additional street width for traffic flow and reducing friction to flow caused by parking and unparking vehicles.

- One-way operation - The capacity of a street can sometimes be increased 20-50%, depending upon turning movements and overall street width, by

initiating one-way traffic operations. One-way streets can also improve traffic flow by decreasing potential traffic conflicts and simplifying traffic signal coordination.

- Reversible lanes - Reversible traffic lanes may be used to increase street capacity in situations where heavy directional flows occur during peak periods.

- Signal phasing and coordination - Uncoordinated signals and poor signal phasing restrict traffic flow by creating excessive stop-and-go operation.

Altering travel demand is a third way to improve the efficiency of existing streets. Travel demand can be reduced or altered in the following ways:

- Encourage people to form carpools and vanpools for journeys to work and other trip purposes. This reduces the number of vehicles on the roadway and raises the people-carrying capability of the street system.

- Encourage the use of transit and the bicycle mode.

- Encourage industries, business, and institutions to stagger work hours or establish variable work hours for employees. This will reduce travel demand in peak periods and spread peak travel over a longer time period.

- Plan and encourage land use development or redevelopment in a more travel-efficient manner.

System Efficiency

Another means for altering travel demand is the development of a more efficient system of streets that will better serve travel desires. A more efficient system can reduce travel distances, time, and cost. Improvements in system efficiency can be achieved through the concept of functional classification of streets and development of a coordinated major street system.

Functional Classification

Streets perform two primary functions--traffic service and land service, which when combined, are basically incompatible. The conflict is not serious if both traffic and land service demands are low. However, when traffic volumes are high, conflicts created by uncontrolled and intensely used

abutting property lead to intolerable traffic flow friction and congestion.

The underlying concept of the thoroughfare plan is that it provides a functional system of streets which permits travel from origins to destinations with directness, ease, and safety. Different streets in the system are designed and called on to perform specific functions, thus minimizing the traffic and land service conflict. Streets are categorized as to function as local access streets, minor thoroughfares, or major thoroughfares (See Figure 1).

Local Access Streets provide access to abutting property. They are not intended to carry heavy volumes of traffic and should be located such that only traffic with origins and destinations on the streets would be served. Local streets may be further classified as either residential, commercial, and/or industrial depending upon the type of land use which they serve.

Minor thoroughfares are more important streets in the city system. They collect traffic from local access streets and carry it to the major thoroughfare system. They may in some instances supplement the major thoroughfare system by facilitating minor through traffic movements. A third function which may be performed is that of providing access to abutting property. They should be designed to serve limited areas so that their development as major thoroughfares will be prevented.

Major thoroughfares are the primary traffic arteries of the city. Their function is to move intra-city and inter-city traffic. The streets which comprise the major thoroughfare system may also serve abutting property; however, THEIR MAJOR FUNCTION IS TO CARRY TRAFFIC. They should not be bordered by uncontrolled strip development because such development significantly lowers the capacity of the thoroughfare to carry traffic and each driveway is a danger and an impediment to traffic flow. Major thoroughfares may range from a two-lane street carrying minor traffic volumes to major expressways with four or more traffic lanes. Parking normally should not be permitted on major thoroughfares.

Idealized Major Thoroughfare System

A coordinated system of major thoroughfares forms the basic framework of the urban street system. A major thoroughfare system which is most adaptable to desire lines of travel within an urban area and which permits movement between

various areas of the city with maximum directness is the radial-loop system. This system consists of several functional elements-radial streets, crosstown streets, loop system streets, and bypasses (See Figure 1).

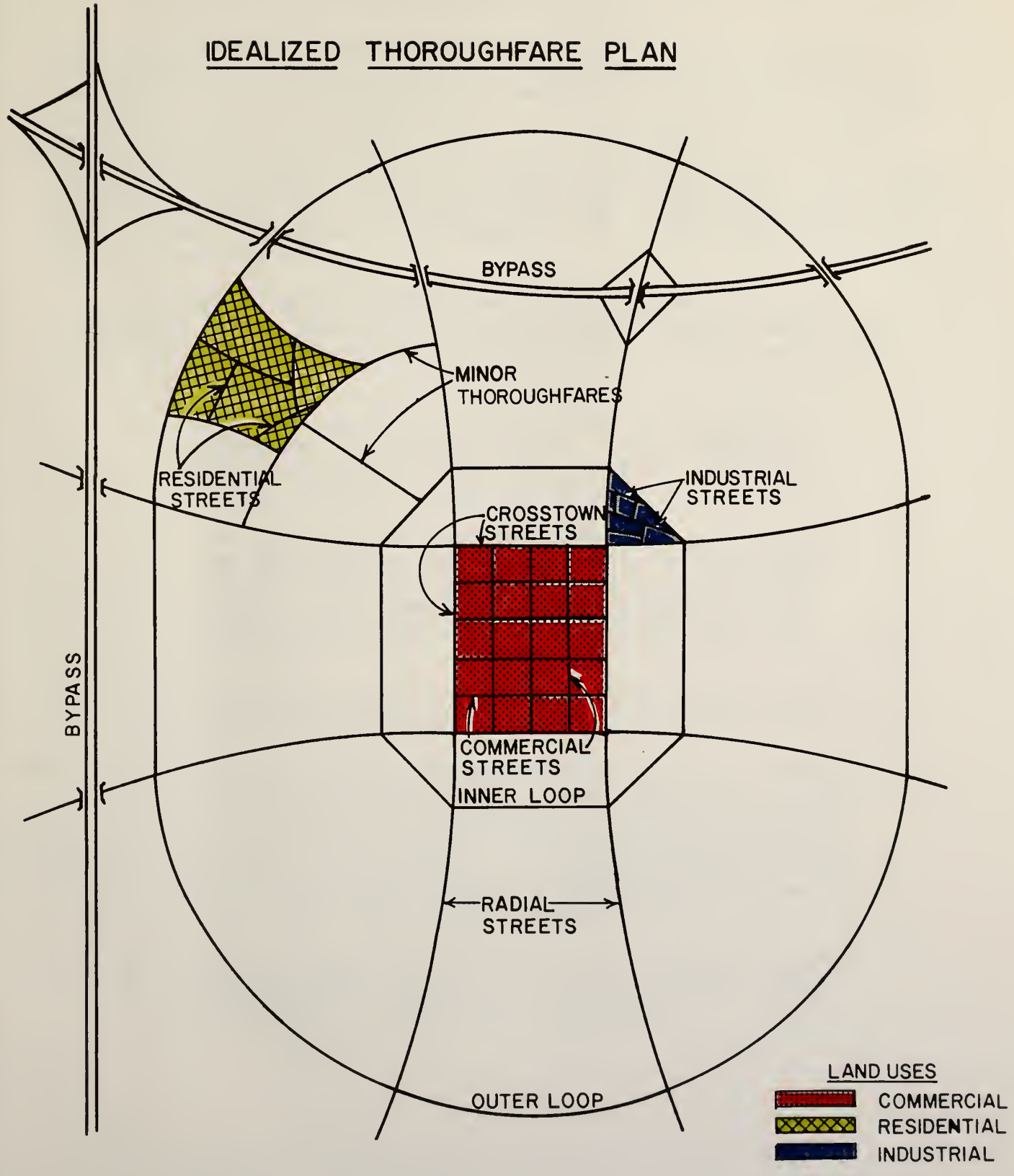
Radial streets provide for traffic movement between points located in the outskirts of the city and the central area. This is a major traffic movement in most cities, and the economic strength of the central business district depends upon the adequacy of this type of thoroughfare.

If all radial streets crossed in the central area, an intolerable congestion problem would result. To avoid this problem, it is very important to have a system of crosstown streets which form a loop around the central business district. This system allows traffic moving from origins on one side of the central area to destinations on the other to follow the area's border and allows central area traffic to circle and then enter the area near a given destination. The effect of a good crosstown system is to free the central area of crosstown traffic, thus permitting the central area to function more adequately in its role as a pedestrian shopping area.

Loop system streets move traffic between suburban areas of the city. Although a loop may completely encircle the city, a typical trip may be from an origin near a radial thoroughfare to a destination near another radial thoroughfare. Loop streets do not necessarily carry heavy volumes of traffic, but they function to help relieve central areas. There may be one or more loops, depending on the size of the urban area, and they are generally spaced one-half mile to one mile apart, depending on the intensity of land use.

A bypass is designed to carry traffic through or around the urban area, thus providing relief to the city street system by removing from it traffic which has no desire to be in the city. Bypasses are usually designed to through highway standards, with control of access. Occasionally a bypass with low traffic volume can be designed to function as a portion of an urban loop. The general effect of bypasses is to expedite the movement of through traffic and to improve traffic conditions within the city. By freeing the local streets for use by shopping and home-to-work traffic, bypasses tend to increase the economic vitality of the local area.

FIGURE 1


IDEALIZED THOROUGHFARE PLAN
BYPASS
MINOR THOROUGHFARES
RESIDENTIAL STREETS
INDUSTRIAL STREETS
CROSSTOWN STREETS
BYPASS
COMMERCIAL STREETS
INNER LOOP
RADIAL STREETS
OUTER LOOP
LAND USES
COMMERCIAL
RESIDENTIAL
INDUSTRIAL

Application of Thoroughfare Planning Principles

The concepts presented in the discussion of operational efficiency, system efficiency, functional classification, and idealized major thoroughfare system are the conceptional tools available to the transportation planner in developing a thoroughfare plan. In actual practice, thoroughfare planning is done for established urban areas and is constrained by existing land use and streets, existing public attitudes and goals, and current expectations of future land use. Compromises must be made because of these and the many other factors that affect major street locations.

Throughout the thoroughfare planning process it is necessary from a practical viewpoint that certain basic principles be followed as closely as possible. These principles are:

1. The plan should be derived from a thorough knowledge of today's travel - its component parts, as well as the factors that contribute to it, limit it, and modify it.

2. Traffic demands must be sufficient to warrant the designation and development of each major street. The thoroughfare plan should be designed to accommodate a large portion of all major traffic movements on a relatively few streets.

3. The plan should conform to and encourage the land development plan of the area.

4. Certain considerations must be given to urban development beyond the current planning period. Particularly in outlying or sparsely developed areas which have development potential, it is necessary to designate thoroughfares on a long-range planning basis to protect rights-of-way for future thoroughfare development.

5. While being consistent with the above principles and realistic in terms of travel trends, the plan must be economically feasible.

III. EXISTING CONDITIONS

The Town of Mebane was granted a charter in 1881 and was designated Mebanesville, with Stephen A. White becoming its first mayor in that year. In 1883, the Town Charter was amended to change the name to read as it does today.

The town is located in Alamance and Orange Counties, twenty-five miles west of Durham and ten miles east of Burlington (see Figure 2). The incorporated town plus the one-mile extra-territorial zoning area was identified as the planning area for this study.

Population Trends

Mebane has experienced steady growth from a population of 693 in 1910 to 2,433 in 1970. This growth has occurred in part by annexation. Table 1 shows the past population growth for Mebane and surrounding areas.

TABLE 1

PAST POPULATION GROWTH[1]

	1910	1920	1930	1940	1950	1960	1970
Mebane	693	1351	1568	2060	2068	2364	2433
Melville Township	1943	2711	3141	3937	4785	5855	6505
Cheeks Township	1762	2049	2219	2235	3021	3646	3711

Table 2 illustrates the present and future population trends. The future population growth takes into consideration the past trends in population growth and future projection as to the amount of increase that can be expected. The population growth for the Town of Mebane has been modest over the years and is anticipated to keep growing at a steady pace.

Approximately 4750 persons were living within the Mebane Planning Area when the first Thoroughfare Plan was prepared. Since then the Town has annexed four new areas into its corporate limits, thus enlarging the planning area.

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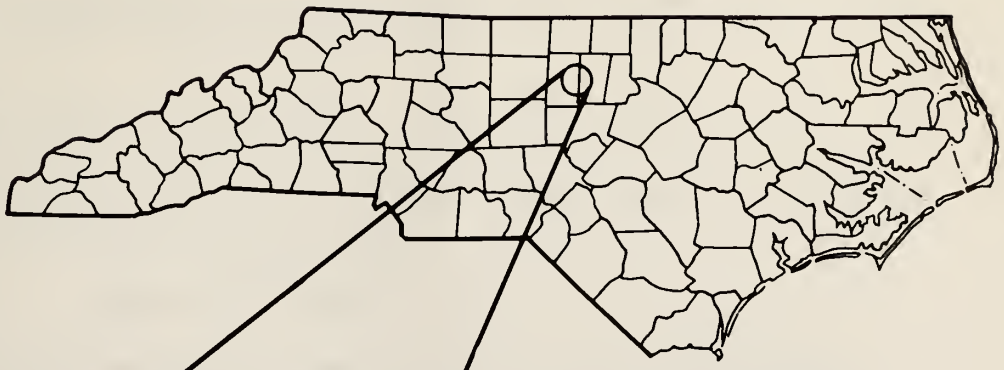
[1]Population and Economy, Mebane, North Carolina, 1966 North Carolina Department of Conservation and Development.

GEOGRAPHIC LOCATION



MEBANE

FIGURE 2

TABLE 2

POPULATION PROJECTIONS FOR MEBANE

	1930	1940	1950	1960	1970	1980	1990	2000
Pop. for Mebane Alamance Cty. part	1,488	1,938	1,929	2,186	2,247	2,580	2,800	3,010
Pop. for Mebane Orange Cty. Part	80	122	138	178	186	240	270	300
Total	1,568	2,060	2,067	2,367	2,433	2,820	3,070	3,310

Land Use Trends

The economic activity in Mebane is centered around manufacturing and services. The major industries are furniture manufacturing and textiles. Industrial growth has been steady in the past and is expected to continue in the future at an increased rate.

The breakdown of existing land uses was determined in a 1967 study by the North Carolina Division of Community Planning[2] and is shown in Table 3. Future land use development is expected to be a build-up of existing uses in the same general locations, such as the residential areas, the Central Business District (CBD), and the manufacturing-warehouse zone of downtown Mebane. New industrial and retail development is expected to continue along and between Interstate 85 and US 70[2].

TABLE 3

LAND USAGE BASED ON 1967 REPORT

Land Use	Town		Fringe		Planning Area	
	Acres	Percentage Developed	Acres	Percent Developed	Acres	Percent Developed
Residential	286.5	51.3	376.5	44.8	663.0	47.3
Manufacturing	37.5	6.7	7.3	1.0	44.8	3.2
Transportation	141.0	25.2	197.2	23.5	338.2	24.2
Trade	25.0	4.5	13.8	1.2	38.7	2.8
Services	59.5	10.7	30.0	3.7	89.5	6.4
Recreation	9.0	1.6	217.0	25.8	226.0	16.1
Undeveloped	193.5		4,296.2		4,489.8	
TOTAL	752.0	100.0	5,138.0	100.0	5,890.0	100.0

[2]Land Development Plan Mebane, North Carolina, North Carolina, 1968, North Carolina Department of Conservation and Development.

Major Street System

There are several major radials serving the Mebane area. US 70 allows east-west access into and through Mebane, making it the only crosstown facility. NC 119 provides the only major north-south access for the area. Interstate 85 skirts the southern portion of the planning area, but its influence and service extends well into Mebane nevertheless. Figure 3 shows the existing major street system.

The street network is capable of serving existing travel demands from a capacity standpoint, but it does contain several system, operational and safety deficiencies. Currently NC 119 passes through Mebane along a very indirect and circuitous path. This is an undesirable situation for both the residents along this route and the motorists using NC 119.

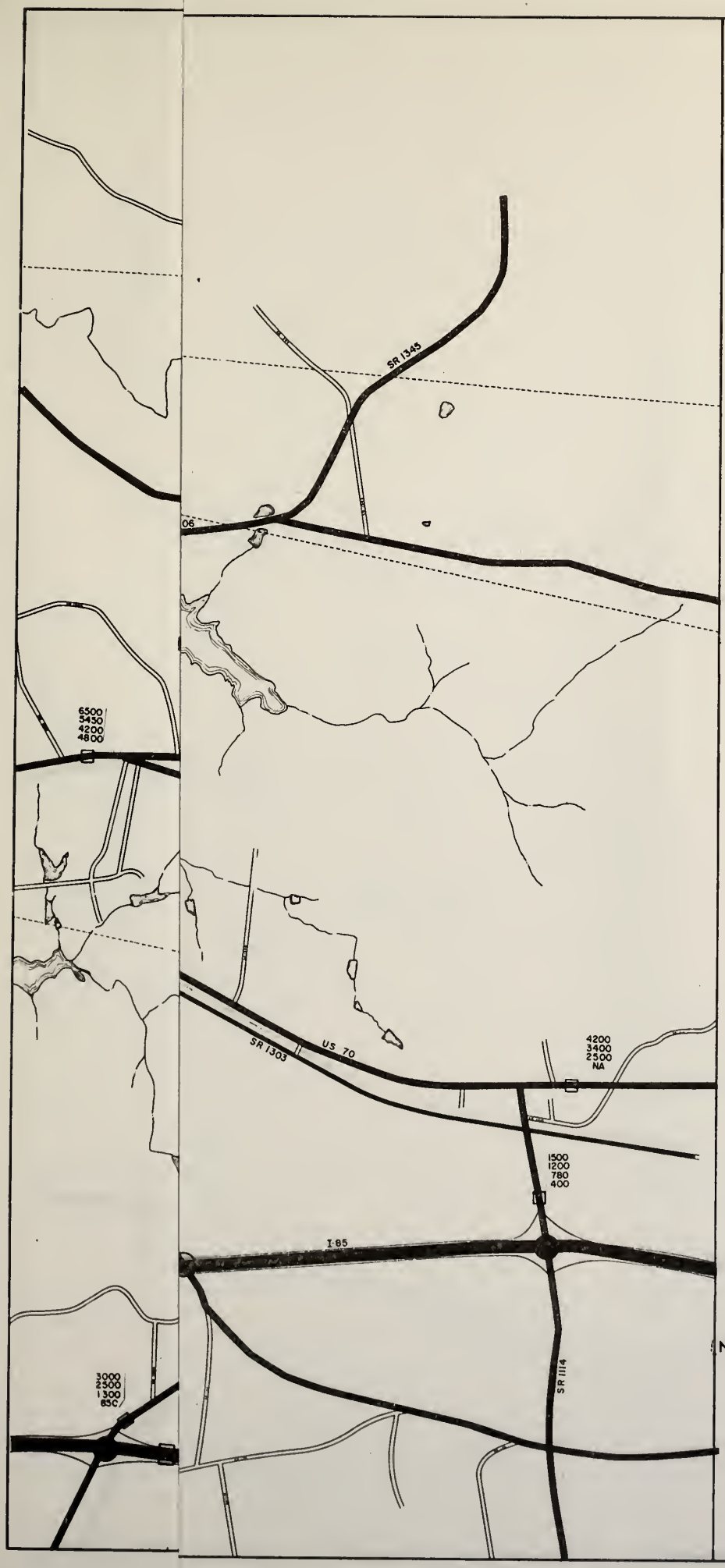
The lack of a grade separation (bridge) over the Southern Railroad which bisects the town presents a traffic operations deficiency and a safety problem as well. A grade separation would reduce the number of potential train-motor vehicular conflicts and also would increase access for safety and emergency vehicles to all parts of the town.

Finally, there is some lack of connectivity in the street system. In most cases, traffic entering Mebane on a radial route and desiring to reach another radial must pass through the central area. There are virtually no circumferential routes, with the exception of Stagecoach Road connecting SR 1306 and SR 1921. Several streets deadend or stub out which, if extended, could improve traffic circulation in the area.

Traffic Volume Trends

The average daily traffic volumes on the major streets for 1961, 1966, 1971, and 1976 are shown in Figure 3.

The traffic volume trends reinforce the economic and population trends discussed earlier. There has been a gradual but steady increase in travel in Mebane over the past fifteen years.



FIGURES DENOTE TRAFFIC COUNTS
FOR YEARS
1976
1971
1966
1961

FIGURE 3

MEBANE, N.C.

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DIVISION OF HIGHWAYS — PLANNING AND RESEARCH BRANCH
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

0 800' 1600' 2400' 3200'

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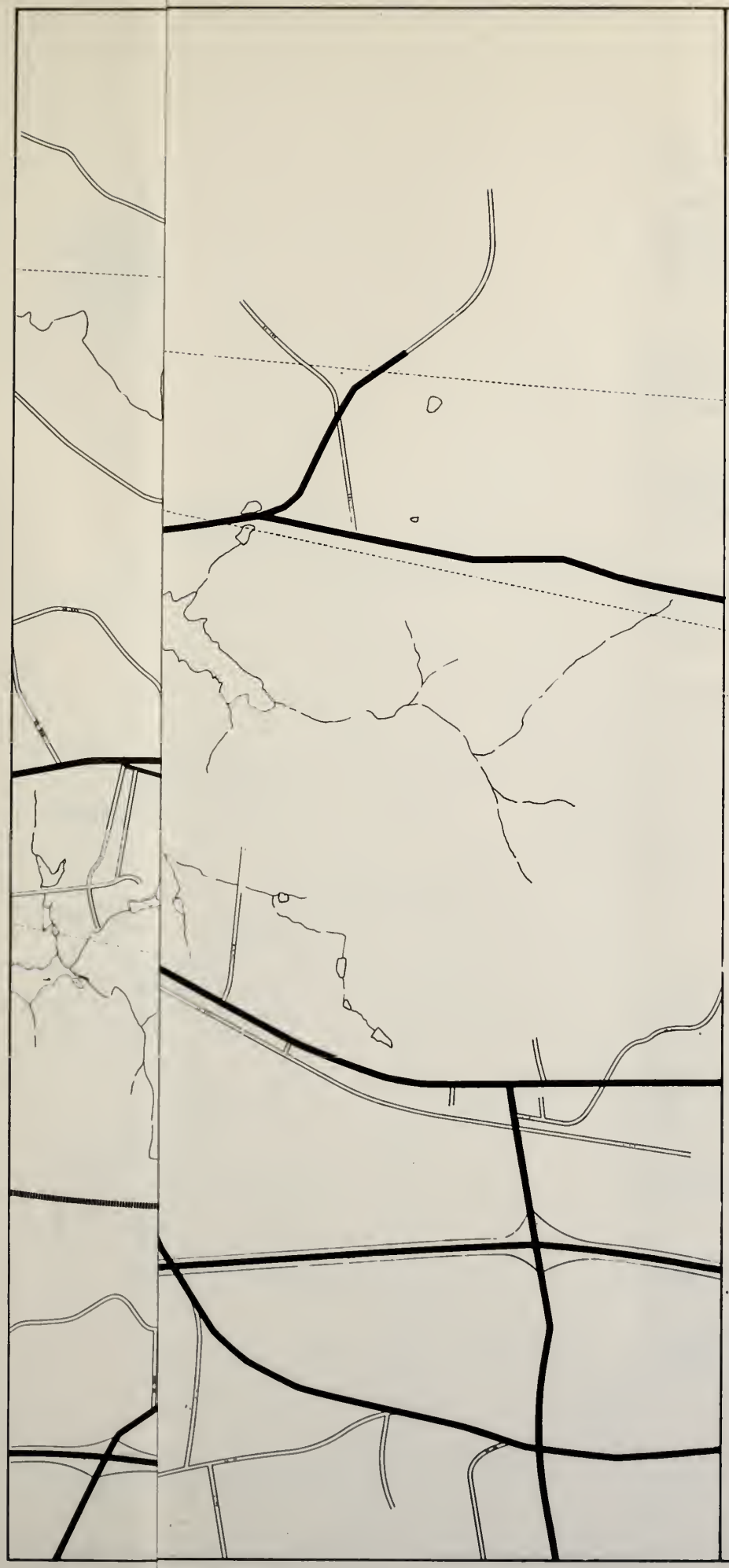


LEGEND:

	Existing	Proposed	Long Range
Major Thoroughfare			
Freeway	———	- - - -	———
Other	———		
Minor Thoroughfare	———	- - - -	———
Interchange	●		
Grade Seperation	○		

Adopted by MEBANE on May 27, 1970.

Recommended approval by Planning & Research Department on June 1, 1970 WFC

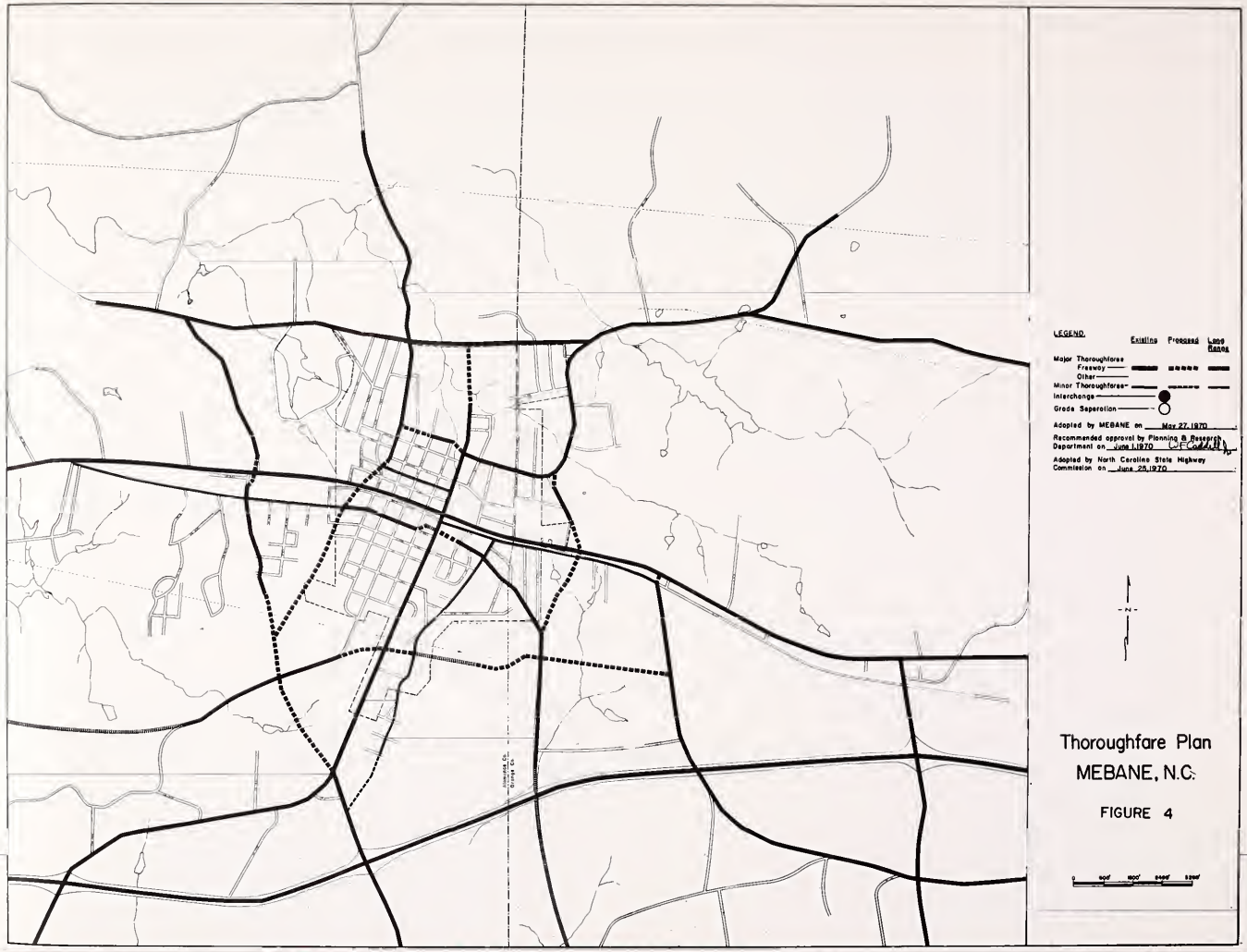
Adopted by North Carolina State Highway Commission on June 25, 1970.

N

Thoroughfare Plan
MEBANE, N.C.

FIGURE 4

0 400' 800' 1600' 2400'



LEGEND.

	Existing	Proposed	Long Range
Major Thoroughfares			
Freeway			
Other			
Minor Thoroughfares			
Interchange			
Grade Separation			

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Thoroughfare Plan
MEBANE, N.C.

FIGURE 4

0 400' 800' 1600' 3200'

IV. RECOMMENDED THOROUGHFARE PLAN

The existing thoroughfare plan for Mebane is shown in Figure 4. A review of the plan on the basis of existing and anticipated traffic problems, and current land development trends lead to several proposed revisions in the plan. The revisions were as follows:

1. The proposed alignment for the NC 119 bypass and urban loop in the southwestern area were revised slightly to provide for more direct movements.

2. SR 1962 (Third Street) with SR 1980 was classified as a minor thoroughfare since such classification was more in keeping with its current and projected function.

3. Jackson Street and Ninth Street were added to the plan as minor thoroughfares since they currently function as collector-type streets.

4. Graham Street was added to the plan as a minor thoroughfare replacing Ruffin Street since it was a more continuous street.

The proposed revised plan is shown in Figure 5 and is described as follows.

Major Thoroughfare System

Radial Thoroughfares

1. US 70 - East and West
2. Stagecoach Road (SR 1921) to the west
3. First Street (NC 119) to the north - It is proposed that NC 119 be relocated by construction of a new facility from NC 119 south at its intersection with SR 1007 to First Street at Ruffin Street. This relocation would provide a much needed railroad underpass in central Mebane.
4. Lebanon Road (SR 1306)-Green Street-Brown Street to the east
5. SR 1345
6. SR 1114
7. SR 1302 - It is proposed that SR 1302 connect directly to US 70.
8. Oakwood Street (SR 1300) - Oakwood Street is proposed to be extended to connect directly to Holt Street to improve the radial movement into the central area.

9. SR 1007
10. NC 119 to the southwest

Crosstown Facilities

Crosstown streets provide for travel across and through the central area. Streets which function as radials can, when combined with another radial, function as crosstown facilities too. There are several such facilities in Mebane. The major thoroughfares which comprise the crosstown system are as follows:

1. US 70 East-West
2. NC 119 North-South (Relocation)
3. Fifth Street - South and North (extension)
4. Holt Street (SR 1963) - Oakwood Street
5. Brown Street-Green Street - Proposed extension of Brown Street east and west would enable this facility to serve as a northern crosstown between First Street and SR 1304.

Loop System

With the construction of the Cedar Street Southern Loop, Mebane would be served most adequately by a loop road extending from NC 119 north along portions of SR 1951, Cedar Street, and SR 1304, tying into Lebanon Road. This would provide circumferential access to outlying areas and interconnect the major radial facilities.

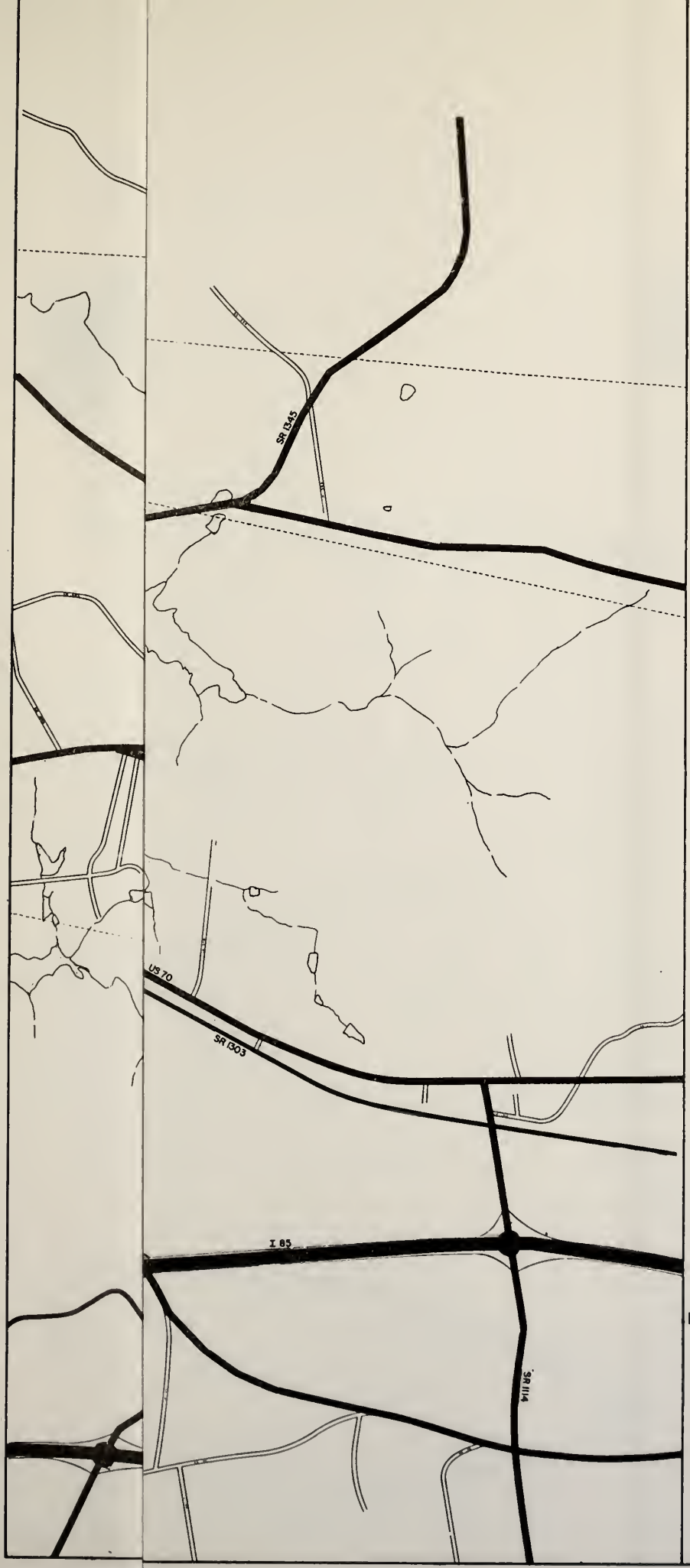
Bypass System

The NC 119 relocation constitutes a bypass to some degree although the northern portion would still utilize local and radial streets. Interstate 85 is an east-west bypass for the Mebane area which carries very heavy volumes of through traffic.

Minor Thoroughfares

Minor thoroughfares proposed for inclusion in the Mebane Thoroughfare Plan include streets which carry out a collector-distributor function and perform a greater land service function than do major thoroughfares. These streets are as follows:

1. South Center Street east of Fifth Street
2. Jackson Street
3. Graham Street



LEGEND:

	Existing	Proposed
Major Thoroughfares		
Freeway		
Other		
Minor Thoroughfares		
Interchange		
Grade Seperation		

FIGURE 5

N

PROPOSED REVISED
Thoroughfare Plan
MEBANE, N.C.

PREPARED BY THE
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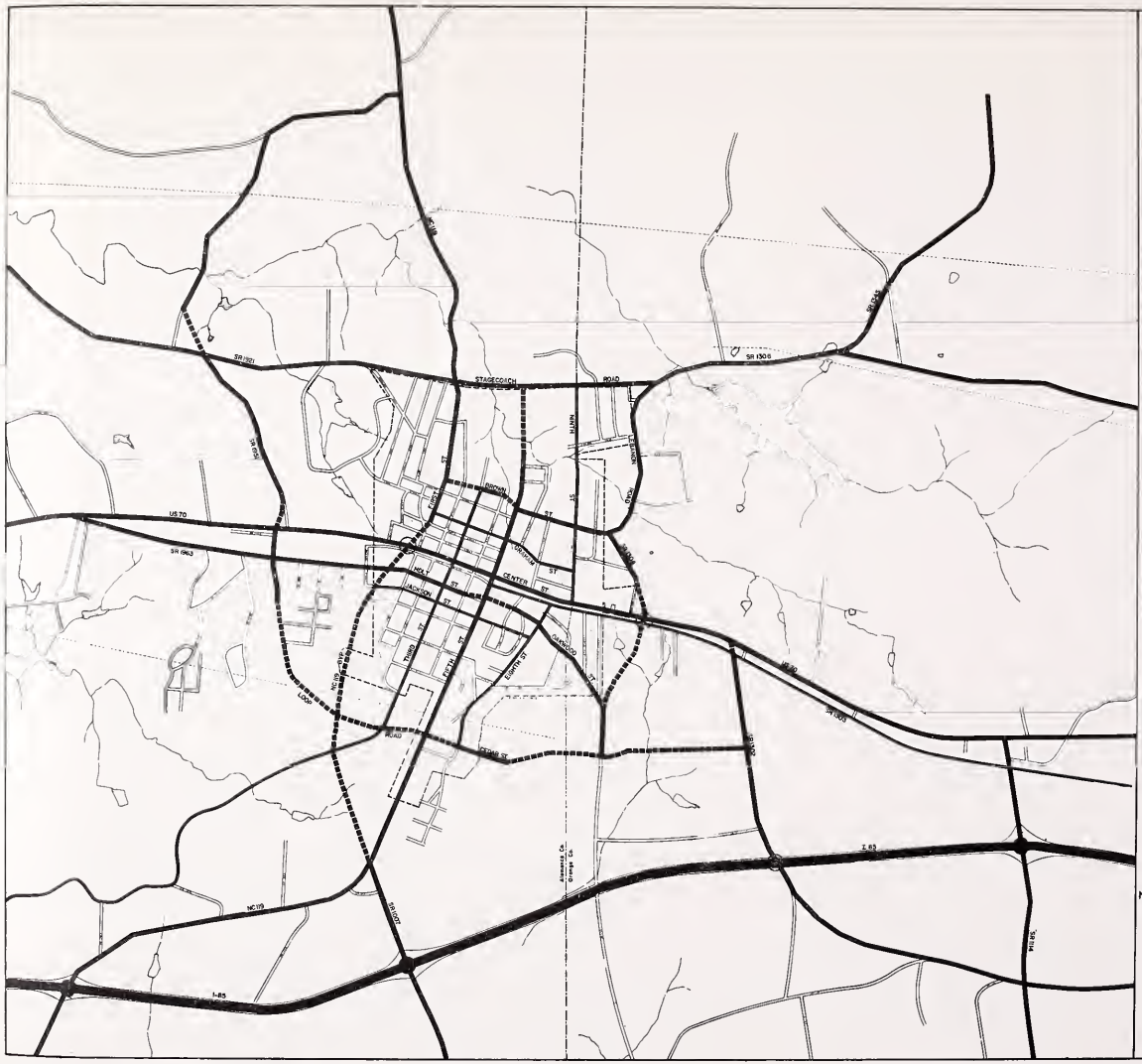

LEGEND:

	Existing	Proposed
Major Thoroughfares		
Freeway		
Other		
Minor Thoroughfares		
Interchange		
Grade Seperation		

FIGURE 5

PROPOSED REVISED Thoroughfare Plan MEBANE, N.C.

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0 600' 1800' 2400' 3200'

4. Third Street - SR 1980
5. Eighth Street
6. Ninth Street

Because of the grid street system in Mebane the function of minor thoroughfares is not as pronounced as in other street systems. It is felt that streets delineated as minor thoroughfares will provide continuity to the thoroughfare plan and that their use as minor thoroughfares will be more pronounced as travel demands for Mebane increase.

V. DESIGN REQUIREMENTS

Design requirements for thoroughfares vary according to the desired capacity and level of service to be profided. Thus, universal standards to be followed in the design of thoroughfares are not practical and each street section must be individually analyzed.

The level of service is a function of the ease of movement experienced by motorists using the facility. The ability of a motorist to drive at a desired speed is dependent upon the physical design of the street; the amount and character of traffic control devices; the influence and character of traffic generated by abutting property; and imposed speed restrictions. The level of service is generally indicated by the overall travel speed[3] experienced by traffic.

Recommended minimum levels of service are generally as given in Table 4. The overall speeds given should be attainable when all components of the urban thoroughfare system are integrated into a network which conforms to the major travel desires of the street users. The level of service to be provided by a specific highway improvement should be compatible with both the desires of the drivers and the economic aspects of the proposed improvement.

There are many factors which influence the traffic capacity of a street; i.e. the number of vehicles that a street can accommodate. Typical capacities for various street cross sections are related here for general guidance. Table 5 indicates typical capacity standards for various types of facilities in terms of vehicles per hour per lane and for a 24-hour period. These design volumes are based on average traffic characteristics including 20 percent turning movements at principal intersections, 10 percent truck volumes, and approximately 50 percent green time at signalized intersections. The 24-hour volumes assume that the peak hour comprises 10 percent of the daily total with 60-70 percent of the peak hour traffic in one direction.

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[3]The overall speed is the total distance traveled divided by the total time required, including all traffic delays.

TABLE 4

MINIMUM LEVELS OF SERVICE

Street Classification	Overall Travel Speed (MPH) During Peak Traffic Conditions CBD	Fringe	Outlying
Major Thoroughfares			
A) Partial control of access	20-30	25-40	35-45
B) No control of access	10-20	20-35	25-40
Minor Thoroughfares	20-40		

TABLE 5

Typical Capacity Design Standards

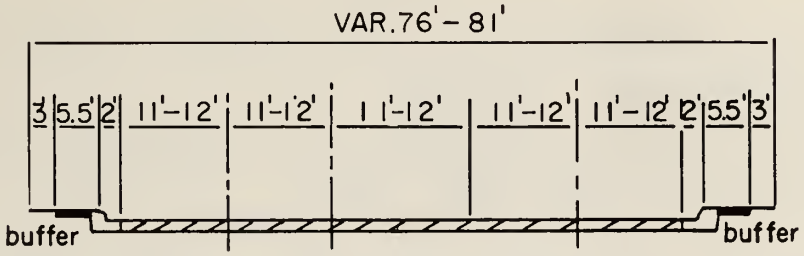
Facility	Practical Capacity[a] Vehicles Per Hour Per Lane	Vehicles Per Day
Two Lanes Plus Parking		
Two-way	400-500	5,700-8,200
One-way	450-600	10,000-13,000
Four Lanes, No Parking		
Two-way	450-550	13,000-18,500
Two-way with special measures	600-800	17,000-26,000

[a]These typical capacities are based on average traffic flow characteristics with 10 percent of the 24-hour volume during the peak hour and 60-70 percent hour volume during the peak hour traffic in the predominant direction. For intersections the green time has been assumed at 50 percent.

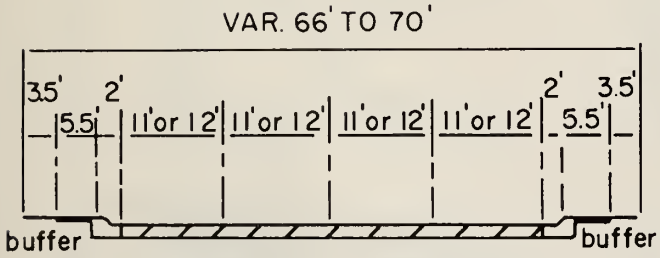
Typical cross section recommendations for the elements of the proposed thoroughfare plan for Mebane are shown in Figure 6. Cross sections A-D are typical for major and minor thoroughfares in developed areas. Cross section E is typical for thoroughfares in rural and fringe areas, and at times is used as an initial stage in the development of sections similar to A, B, C and D. Cross Section F is standard for rural multilane freeways.

Recommended cross sections for thoroughfares included in the Mebane Thoroughfare Plan are given in Table 6.

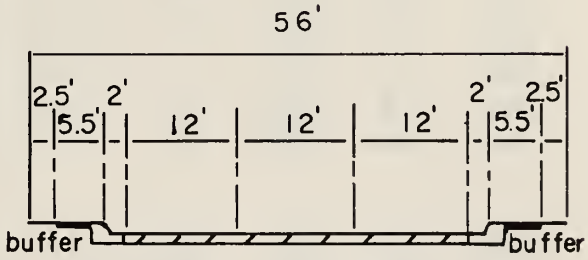
TYPICAL STREET CROSS SECTIONS



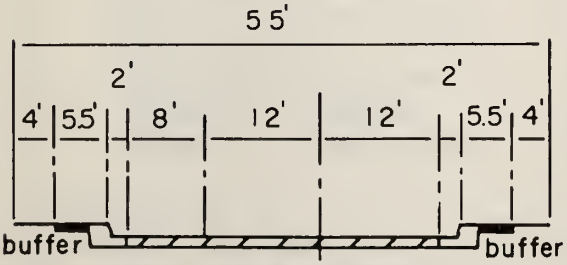
A. FIVE LANES-URBAN



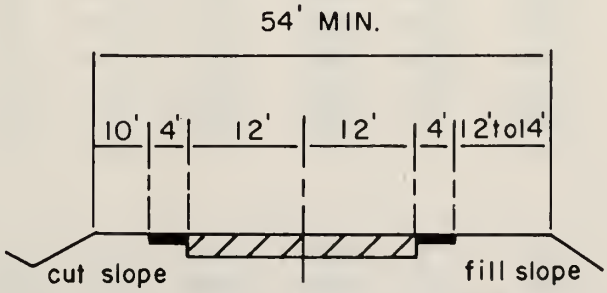
B. FOUR LANES—URBAN



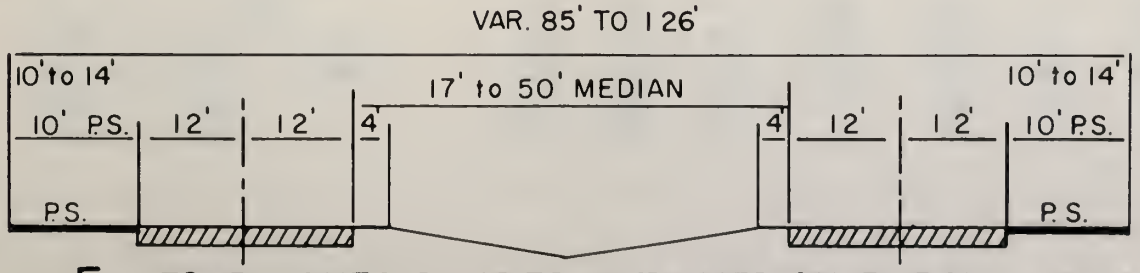
C. THREE LANES—URBAN



D. TWO LANES — URBAN
PARKING ON ONE SIDE



E. TWO LANES—RURAL



F. FOUR LANES DIVIDED WITH MEDIAN-RURAL

FIGURE 6

TABLE 6

STREET TABULATION & RECOMMENDATIONS

FACILITY & SECTION	EXISTING X-SECTION			RECOMMENDED X-SECTION		ULTIMATE X-SECTION	
	DIST. MI.	RDWY FT.	ROW FT.	TYPE	ROW	TYPE	ROW
BROWN ST							
1ST -- 3RD	.17	--	--	D	60	D	60
3RD -- 5TH	.18	--	--	D	60	D	60
CENTER ST (US 70)							
SR 1963 -- SR 1951	.91	22	100	ADQ	ADQ	ADQ	ADQ
SR 1951 -- 3RD	.83	30	100	B	ADQ	B	ADQ
3RD -- 5TH	.18	48	100	A	ADQ	A	ADQ
5TH -- 9TH	.37	36	100	B	ADQ	B	ADQ
9TH -- SR 1302	.76	22	100	B	ADQ	B	ADQ
SR 1302 -- SR 1114	1.32	22	100	ADQ	ADQ	ADQ	ADQ
EIGHTH ST							
CEDAR -- JACKSON	.62	18	50	ADQ	ADQ	ADQ	ADQ
JACKSON -- OAKWOOD	.08	18	50	ADQ	ADQ	ADQ	ADQ
OAKWOOD -- WASHINGTON	.09	18	50	ADQ	ADQ	ADQ	ADQ
FIFTH ST							
SR 1007 -- LOOP	.62	18	60	ADQ	ADQ	E	ADQ
LOOP -- JACKSON	.58	27	60	ADQ	ADQ	ADQ	ADQ
JACKSON -- HOLT	.08	27	60	ADQ	ADQ	ADQ	ADQ
HOLT -- WASHINGTON	.08	27	60	ADQ	ADQ	ADQ	ADQ
WASHINGTON -- CENTER	.04	48	60	ADQ	ADQ	ADQ	ADQ
CENTER -- GRAHAM	.17	30	50	ADQ	ADQ	ADQ	ADQ
GRAHAM -- BROWN	.15	18	50	ADQ	ADQ	D	ADQ
BROWN -- STAGECOACH	.56	18	50	D	60	D	60
GREEN ST							
5TH -- 9TH	.28	18	50	ADQ	ADQ	D	60
9TH -- SR 1304	.15	18	50	ADQ	ADQ	D	60
GRAHAM ST							
1ST -- 3RD	.17	30	50	ADQ	ADQ	ADQ	ADQ
3RD -- 5TH	.18	18	50	D	60	D	60
5TH -- 9TH	.35	18	50	D	60	D	60
HOLT ST (SR 1963)							
US 70 -- LOOP	.91	18	60	ADQ	ADQ	D	ADQ
LOOP -- NC 119 BYP	.55	18	60	ADQ	ADQ	D	ADQ
NC 119 BYP -- 3RD	.25	27	60	ADQ	ADQ	ADQ	ADQ
3RD -- 5TH	.19	30	50	D	60	D	60
5TH -- 8TH	.27	30	50	D	60	D	60

TABLE 6

STREET TABULATION & RECOMMENDATIONS

FACILITY & SECTION	EXISTING X-SECTION			RECOMMENDED X-SECTION		ULTIMATE X-SECTION	
	DIST. MI.	RDWY FT.	ROW FT.	TYPE	ROW	TYPE	ROW
INTERSTATE 85							
SR 1114 -- SR 1007	1.60	48	260	F	ADQ	F	ADQ
SR 1007 -- NC 119	2.80	48	260	F	ADQ	F	ADQ
JACKSON ST							
NC 119 BYP -- 3RD	.27	30	50	ADQ	ADQ	ADQ	ADQ
3RD -- 5TH	.19	30	50	ADQ	ADQ	ADQ	ADQ
5TH -- 8TH	.26	30	50	ADQ	ADQ	ADQ	ADQ
LEBANON RD (SR 1306)							
9TH -- SR 1304	.17	18	60	ADQ	ADQ	E	ADQ
SR 1304 -- STAGECOACH	.80	18	60	ADQ	ADQ	E	ADQ
STAGECOACH -- SR 1345	.88	18	60	ADQ	ADQ	E	ADQ
LOOP RD							
NC 119N -- SR 1920	.58	18	60	ADQ	ADQ	E	60
SR 1917 -- STAGECOACH	1.10	20	60	ADQ	ADQ	E	60
STAGECOACH -- US 70	.80	20	60	ADQ	ADQ	E	60
US 70 -- HOLT	.14	20	60	E	ADQ	E	ADQ
HOLT -- NC 119 BYP	.83	--	--	E	60	E	60
NC 119 BYP -- 3RD	.21	--	--	E	100	B	100
3RD -- 5TH	.20	--	--	E	100	B	100
5TH -- 8TH	.16	--	--	E	100	B	100
8TH -- OAKWOOD	.67	--	--	E	100	B	100
OAKWOOD -- SR 1302	.68	--	--	E	60	E	60
NC 119, FIRST ST, BYP							
I-85 -- SR 1007	.62	18	60	E	ADQ	E	ADQ
SR 1007 -- SR 1962	.52	--	--	E	60	E	60
SR 1962 -- LOOP	.18	--	--	E	60	E	60
LOOP -- JACKSON	.64	--	--	E	100	B	100
JACKSON -- HOLT	.09	--	--	E	100	B	100
HOLT -- GRAHAM	.32	--	--	E	100	B	100
GRAHAM -- BROWN	.15	20	60	ADQ	ADQ	B	100
BROWN -- STAGECOACH	.44	20	60	ADQ	ADQ	B	100
STAGECOACH -- LOOP	1.32	20	60	ADQ	ADQ	E	ADQ
NINTH ST (SR 1306)							
STAGECOACH -- GREEN	.64	18	60	ADQ	ADQ	ADQ	ADQ
GREEN -- GRAHAM	.20	18	60	ADQ	ADQ	ADQ	ADQ
GRAHAM -- CENTER	.15	18	60	ADQ	ADQ	ADQ	ADQ

TABLE 6

STREET TABULATION & RECOMMENDATIONS

FACILITY & SECTION	EXISTING X-SECTION			RECOMMENDED X-SECTION		ULTIMATE X-SECTION	
	DIST. MI.	RDWY FT.	ROW FT.	TYPE	ROW	TYPE	ROW
OAKWOOD ST (SR 1300)							
8TH -- SR 1304	.48	18	60	ADQ	ADQ	D	ADQ
SR 1304 -- LOOP	.21	20	60	ADQ	ADQ	B	100
SECONDARY ROAD 1007							
5TH -- I-85	.49	20	60	ADQ	ADQ	ADQ	ADQ
SECONDARY ROAD 1114							
US 70 -- SR 1303	.14	20	60	ADQ	ADQ	ADQ	ADQ
SR 1303 -- I-85	.35	20	60	ADQ	ADQ	ADQ	ADQ
I-85 -- SR 1302	.65	20	60	ADQ	ADQ	ADQ	ADQ
SECONDARY ROAD 1302							
US 70 -- SR 1303	.43	20	60	ADQ	ADQ	ADQ	ADQ
SR 1303 -- SR 1114	1.90	20	60	ADQ	ADQ	ADQ	ADQ
SECONDARY ROAD 1304							
LEBANON -- OAKWOOD	.87	18	60	E	100	B	100
SECONDARY ROAD 1951							
LOOP -- STAGECOACH	.53	20	60	ADQ	ADQ	ADQ	ADQ
STAGECOACH RD (SR 1921)							
LEBANON -- 9TH	.35	18	60	ADQ	ADQ	E	ADQ
9TH -- 5TH EXT	.24	18	60	ADQ	ADQ	E	ADQ
5TH EXT -- 1ST	.32	18	60	ADQ	ADQ	E	ADQ
1ST -- SR 1951	1.12	18	60	ADQ	ADQ	E	ADQ
THIRD ST							
BROWN -- GRAHAM	.17	30	50	ADQ	ADQ	ADQ	ADQ
GRAHAM -- CENTER	.17	30	50	ADQ	ADQ	ADQ	ADQ
CENTER -- HOLT	.12	27	50	ADQ	ADQ	ADQ	ADQ
HOLT -- JACKSON	.08	27	50	ADQ	ADQ	ADQ	ADQ
JACKSON -- LOOP	.61	18	50	ADQ	ADQ	E	60
LOOP -- NC 119 BYP	.21	20	60	ADQ	ADQ	ADQ	ADQ
NC 119 BYP -- SR 1980	.65	20	60	ADQ	ADQ	ADQ	ADQ
WASHINGTON ST (SR 1303)							
5TH -- 8TH	.29	20	60	ADQ	ADQ	ADQ	ADQ
8TH -- SR 1302	.86	20	60	ADQ	ADQ	ADQ	ADQ
SR 1302 -- SR 1114	1.36	20	60	ADQ	ADQ	ADQ	ADQ

VI. IMPLEMENTATION

There are several tools which are recommended for implementation of the thoroughfare plan. They are as follows:

State Municipal Adoption of the Thoroughfare Plan

Chapter 136, Article 3A, Section 136-66.2 of the General Statutes of North Carolina provides that after development of a thoroughfare plan, the plan may be adopted by the governing body of the municipality and the Board of Transportation as the basis for future street and highway improvements in and around the municipality. Once the thoroughfare plan is mutually adopted, negotiations will begin to determine which of the existing and proposed thoroughfares will be a Division of Highways responsibility and which will be a municipal responsibility. Facilities which are designated a Division of Highways responsibility will be constructed and maintained by the Division of Highways; however, the municipality will share in the right-of-way costs, with the municipality's share of the cost to be determined at time of construction.

Subdivision Control

A subdivision ordinance requires that every subdivider submit to the Town a plot of his or her proposed subdivision. Certain standards must be met by the developer before he can be issued a building permit to construct his development. Through this process it is possible to reserve or protect the necessary rights-of-way for projected streets which are a part of the thoroughfare plan and to require street construction in accordance with the plan.

Official Street Map

A municipality may, through special enabling legislation, adopt an official street map which indicates both existing and future street lines. No new construction or reconstruction of structures would be permitted within the designated future street lines. This would over a period of time reduce the cost of additional right-of-way along densely developed thoroughfares which will require widening at some future date. The following streets could benefit from this legislation: North Center Street (US 70), Fifth Street and the proposed Southern Loop.

Zoning

A zoning ordinance can be beneficial to thoroughfare planning in that planned locations of various land uses and planned densities of dwellings can be realized. This provides a degree of stability on which to make future traffic projections and to plan streets and highways.

Other benefits of a good zoning ordinance are: (1) the establishment of standards of development which will aid traffic operations on thoroughfares; (2) the minimization of strip commercial development which creates traffic friction and increases the traffic accident potential; and (3) the requirement for provision of off-street parking by new developers with the purpose of eventual prohibition of all curb parking on major thoroughfares.

Urban Renewal

Urban renewal is the term used to describe the elimination of blight. It is one of the few tools available for correcting basic mistakes in the existing street pattern.

The urban renewal program is carried out under the framework of the Federal Housing Act of 1954, as amended, and consists of a three-fold attack on blight. It calls for the conservation of good areas of the cities, rehabilitation of declining areas, and clearance of slum areas so that they may be redeveloped to good standards. If a municipality meets certain requirements as to master plan, good codes and ordinances, and citizen participation, it may obtain assistance in such a program from the Federal Government with the Government paying three-fourths of the cost of the project.

Capital Improvements Program

One of the tools which makes it easier to build a planned thoroughfare system is a capital improvements program. This is a long range plan for the spending of money on street improvements, acquisition of rights-of-way, and other capital improvements within the bounds of projected revenues. Municipal funds should be available for construction of street improvements which are a municipal

responsibility, right-of-way cost sharing on facilities designated a Division of Highways responsibility, and advance purchase of right-of-way where such action is required.

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